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Washington, D.C. 20555-0001

Interim Report Concerning an Evaluation of a Deviation Pursuant to 10 CFR 21.21(a)(2)

Enclosed is an interim report concerning an evaluation of a deviation under the provisions of Part 21.

The enclosed report summarizes the actions being taken to assess the potential failure of certain Eaton Electrical Freedom Series Heater Pack models manufactured and supplied between September of 2004 and May of 2005. No customers have observed or reported any adverse operational experience with the Eaton Electrical Freedom Series Heater Pack models. Since the only failures of certain Freedom Series Heater Pack models have occurred during installation or removal of the heater pack only and not during heater operation, there is no reason to believe a substantial safety hazard exists.

Those Framatome ANP customers potentially affected by this matter will be notified and will receive a copy of this interim report.

Sincerely,

Ronnie L. Gardner

Ronnie L. Gardner, Manager
Site Operations and Regulatory Affairs

Enclosure

cc: M. C. Honcharik
Project 728

FRAMATOME ANP, INC. An AREVA and Siemens company
3315 Old Forest Road, P.O. Box 10935, Lynchburg, VA 24506-0935
Tel.: 434 832 3000 - Fax: 434 832 3840 - www.areva.com

ATTACHMENT A

Interim Report CR 2005-2433

Subject:

Interim Report Concerning an Evaluation of a Deviation Pursuant to 10CFR21.21(a)(2).

Title:

Potential failure of certain Eaton Electrical Freedom Series Heater Pack models, manufactured and supplied by Eaton Electrical, between September, 2004 and May, 2005.

Identification of Basic Activity:

Evaluation of the potential failure of certain Eaton Electrical Freedom Series Heater Pack models.

Basic Activity Supplied by:

Framatome ANP, Inc.

Nature of Deviation:

This issue concerns the potential failure of certain Eaton Electrical Freedom Series Heater Pack models. The potential for failure is due to a possible deficiency in the weld which joins the screw terminal to the heater coil. The following condition has the potential to occur:

If the weld on an Eaton Electrical Freedom Series Heater Pack failed after installation into a Freedom Overload Relay, the failed heater could create an open circuit resulting in the current for that pole to be removed from the load. If the load was not running at the time of failure, there would be no indication of failure until attempted start of the load. The load would not start in this condition and would draw excessive current which should trip the overload. A properly applied, correctly operating thermal overload relay should protect the load from damage in this condition. If the load was running at the time of failure, the load would slow or stop while drawing excessive current, which should trip the overload. A properly applied, correctly operating thermal overload relay should protect the load from damage in this condition. If two or three heaters failed in the same overload condition, there would be no current flow to the load. If two heaters failed, a voltage to ground could exist at the load on one phase, which could represent a shock hazard. Customary source lockout/tag out requirements for electrical work would prevent this hazard from endangering personnel, since the starter should be completely de-energized before troubleshooting work is performed that would expose personnel to the energized conductor.

Because nuclear safety-related components have been supplied to several customers that may have been in service for a number of months, the situation needs to be evaluated under the requirements of Part 21.

Since no failures have been reported while in operation and the observed failure modes are restricted to installation and removal activities, Framatome ANP has no reason to believe a substantial safety hazard exists. In addition, there is no evidence of any deleterious effects on any load which has been connected to a failed heater.

Discovery Date:

June 8, 2005

Corrective Actions to Date:

This condition is suspect for the following styles of Eaton Cutler-Hammer Freedom Series Heater Packs:

> H2009B-3 through H2014B-3 Series Heater Packs, which utilize spot welds with a nickel slug to join the brass screw terminal to the heater coil.

Framatome ANP has supplied safety related Eaton Electrical Freedom Series Heater Packs H2009B-3 through H2014B-3 to the customers identified below, and considers all aforementioned Eaton Cutler-Hammer Freedom Series Heater Packs supplied between September, 2004 and May, 2005, to be suspect.

Nuclear Customers that Purchased Eaton Electrical Freedom Series Heater Packs Style H2009B-3 through and including H2014B-3				
Nuclear Customer	Plant	Component	Quantity	Note
American Electric Power	DC Cook	H2009B-3	4	A
Georgia Power	Vogtle	H2009B-3	37	A
Georgia Power	Vogtle	H2013B-3	1	A
First Energy Service Co.	Beaver Valley	H2009B-3	17	A
First Energy Service Co.	Beaver Valley	H2010B-3	11	A
First Energy Service Co.	Beaver Valley	H2009B-3	10	A,B
First Energy Service Co.	Beaver Valley	H2010B-3	2	A,B
First Energy Service Co.	Beaver Valley	H2013B-3	2	A,B

Notes:

A. The suffix "-3" indicates a package of three (3) heaters of type H20XXB, where "XX" represents the size of the heater.
B. Suspect heaters were installed in replacement MCC buckets.

The investigation by Framatome ANP has attained the following preliminary results. The investigation required coordination with the supplier to determine the cause(s) of the problem. The preliminary results of the investigation have determined that the root cause of the failure of the bond between the brass terminal and the nickel slug associated with the subject Eaton Electrical Freedom Series Heater Pack styles was due to the following major deficiencies:

1) Incorrect current settings on the welding machine.
2) Fluctuations in power supply voltage.
3) Inconsistent application of inspection criteria.

Supplier corrective actions implemented include: increased current settings, voltage regulation, documented daily inspections of the welding machine current settings, documented destructive sample testing and increased documented production sample inspections.

In conjunction with the supplier corrective action(s), corrective actions to prevent recurrence are being developed by Framatome ANP which will be included in dedication activities that address weld integrity acceptance. These corrective actions will be communicated prior to the close of the subject Condition Report and implemented immediately following development.
Framatome ANP, Inc – Electrical Products recommends the replacement of all H2009B-3 through H2014B-3 Eaton Electrical Freedom Series Heater Packs manufactured between September 1, 2004 and May 31, 2005.

AREVA Framatome ANP will evaluate its current dedication inspection and testing procedures. As part of this evaluation, Framatome ANP will establish the criterion to be used to determine revisions to the dedication inspection and testing procedures.

Evaluation Completion Schedule:

September 30, 2005